

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of  
Yongcai Wang, et al.

Group Art Unit: 1794  
Examiner: Pamela R. Schwartz

INKJET RECORDING ELEMENT

Serial No. 10/021,341  
Filed December 12, 2001

Mail Stop APPEAL BRIEF - PATENTS  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**APPELLANTS' REPLY BRIEF**

This Reply Brief is necessitated by several "new points of argument" in the Examiner's Answer mailed June 05, 2008. Each new point of argument is addressed below in turn.

1) In paragraph 3 of the Examiner's Answer, the Examiner has set forth a New Ground of Rejection. The Examiner states that claim 17 is rejected under 35 USC 112 as being indefinite for failing to point out and distinctly claim the invention. The Examiner notes that claim 17 recites that "the image receiving layer has no UV absorbers for preventing light fade." The Examiner states that most inorganic particles will absorb UV radiation and some inorganic particles are conventionally used for this purpose. The Examiner states that it is not clear if in claim 17 Appellant intends to exclude inorganic particles, exclude those inorganic particles conventionally used as UV absorbers, or if Appellant is attempting to exclude particles based solely on the intended purpose for their inclusion. The Examiner states that it appears that Appellant may be attempting to exclude particles based on function and that such inclusion or exclusion would be improper because it would result in inclusion or exclusion based on intent rather than structural or

composition distinctions. The Examiner states the claim is unclear because the scope of the exclusion cannot be determined. This rejection is respectfully traversed. It is respectfully urged that the claim is definite. The claim refers to UV absorbers for preventing light fade. This language would limit the claim to those known materials that are known to be effective as UV absorbers allowing prevention of light fade. The language of the claim actually would exclude inorganic particles having marginally effective UV abilities that are not sufficient to prevent light fade as only effective UV absorbers are included in the claim. Therefore, it is respectfully requested that this rejection be reversed.

2) In the Response to Argument portion of the Examiner's Answer, the Examiner sets forth the following new argument:

*Appellants also rely on a disclosure in the reference that the outermost layer preferably contains cationic compound to support the notion that the layers of the reference do not have the same position (appellants cite [0052] but the examiner found this disclosure at [0046]. Reciting that a compound is preferably in one layer does not exclude its presence in the other layer(s).*

In response to this argument, it is respectfully urged that while 0046 does have the "may," language this is not a disclosure that the cationic material may be in any other layer as the Examiner seems to suggest. This is more likely a teaching that, while the cationic compound is much preferred for the principal ink receiving layer (0053), that it may not be present in the ink receiving material at all, and is certainly not a teaching that it may be present in other layers. Therefore, it is respectfully urged that this argument is not convincing.

3) In the Response to Argument section of the Examiner's Answer, the Examiner sets forth the following new argument:

*On page 5 of the Brief, Appellants quote a section of Kitamura et al. at [0061] and conclude that "the concern for light resistance is only relevant to the outermost ink receiving layer and, even then, only to a limited thickness or depth of the outermost layer." However, in the section of the reference quoted by Appellants, the reference uses the language "preferably arranged to form an outermost layer..." This disclosure is to a preferred embodiment and is not representative of the full scope of the disclosure. Also, the language used is "an outermost layer" (emphasis added). Since "an" has been*

*interpreted in case law as having the meaning "one or more," the language supports the Examiner's interpretation.*

In response to this argument, the Appellant points out that the paragraph quoted is (0055), and not (0061). It is respectfully urged that in this instance the Examiner's argument that "an" could mean more than one layer is in error. Attention is directed to page 7 lines 50-53 where it is set forth that the outermost layer comprises the principal layer. There cannot really be more than one outermost layer and the reference paragraph [0055] can only be interpreted to be the formation of one layer. Therefore, it is respectfully urged that this argument of the Examiner is not convincing and should not be considered.

4) In the Response to Arguments section of the Examiner's Answer, the Examiner sets forth the following new arguments:

*Appellants also attempt to distinguish by asserting that their base layer is not an image-receiving layer and that the Examiner is equating their base layer to an image receiving layer of the reference. This is not the case. The layers of the reference are not image receiving layers; they are ink receiving layers. The term ink receiving is broader than image receiving and would include layers that capture the image (i.e. ink colorant) as well as layers that act primarily as a sump for ink solvent and also layers that perform both functions. The layers of the reference must be capable of receiving colorant, solvent, or both colorant and solvent.*

*Appellants argue that their base layer is used as a sump for the ink solvent. This feature is not claimed, but even if it were, it would not distinguish over the reference layers. The reference discloses one or more ink receiving layers which may be of the same or different compositions. From this disclosure, it appears that each of the layers would have to absorb a portion of the ink solvent, i.e. act as a sump for ink solvent, because there is no separate mechanism to serve this purpose and the layers have similar compositions. In addition, one or more layers may be involved in capturing the colorant and forming the image. While one of ordinary skill in the art may predict that the outermost layer is intended to capture the colorant because it is the preferred location for a cationic compound that will act to mordant an anionic dye, a clear line of demarcation between the purposes of the ink receiving layers of the reference cannot be drawn; other layers may also contain cationic compound [0046, 0054]. Contrary to appellants' assertions, this is not a persuasive basis for distinguishing appellants' claims from the prior art.*

*Appellants also assert that their base and image receiving layers significantly differ in composition. The reference may also have layers of different composition and functionality. All of the disclosed and claimed particles are well known to one of ordinary skill in this art and selection from among them would have been considered obvious, yielding predictable results, at the time of appellants' invention. It is also noted that the inorganic particles of the reference [0014, 0021, 0011] overlap significantly with those recited by appellants at page 5 of the specification.*

It is respectfully urged that these arguments are in error. These paragraphs are in reply to the Appellants' urging that the instant base layer is different from the image receiving layers and that this base layer distinguishes the invention from the structures of Kitamura. The Examiner, selecting from lists of numerous materials and utilizing the "may" and "optional" language of Kitamura, has found materials, weights, layers, and thicknesses that if properly selected may create a product that is something like the claimed article. The Examiner has selected many optional materials, thicknesses, layers, and weights from Kitamura in order to reject as obvious each limitation of the very narrowly drawn claim of this appeal. It is respectfully submitted that the Examiner may have an obviousness argument for one or two limitations. Nevertheless, once the numerous selections and modifications in the reference are necessary, such as in the instant rejection, the Examiner needs to show an overall obviousness and not the possible obviousness of each selection. The applicant has performed research that has led to a preferred product, using known materials, which functions in an unusually effective manner. The fact that the materials are known and by multiple selections from a reference that the claim language may be reconstructed does not make the reconstruction obvious. The entire claim has to be shown to be obvious, not each limitation separately. There is no suggestion that selection of all these limitations at once could have been obvious to one of ordinary skill in the art. Therefore, it is respectfully requested that these arguments of the Examiner are not convincing and should not be considered.

5) In Response to Arguments section of the Examiner's Answer, the Examiner sets forth the following new arguments:

*Appellants discuss their comparisons from the specification. These comparisons are not made with the closest prior art. The control examples in Appellants' specification have no*

*antioxidant in the base layer or have none in the image receiving layer. These examples are not representative of the primary reference. Without performing any direct comparisons with the applied art, appellants attempt to distinguish over the primary reference by attributing improved results in the reference examples to the presence of UV absorbers rather than to antioxidants. Appellants argue that UV absorbers may cause discoloration, however, only appellants' claim 17 recites that UV absorber is not present. The argument concerning the presence (or lack) of UV absorber isn't persuasive because in fact, appellants do include UV absorbers in their layers. Many of appellants' disclosed inorganic particles which presumably may be present in the medium of instant claim 17 are referred to as UV absorbers by the reference. Claim 17, which recites the exclusion of UV absorbers, appears to be at odds with the disclosure of the invention (see for example, page 4, line 29 through page 5, line 7). The meaning of claim 17 is unclear since the same materials are both inorganic particles and well known UV absorbers.*

It is respectfully urged that this argument is in error. The Examiner points out that the comparisons in the specification are not direct comparisons with the closest art. Nevertheless, these Examples provide evidence of the effectiveness of the invention in improving dye fade in comparison with reasonable controls. As shown in Tables 1, 2, and 3 superior results are obtained with the invention. Therefore, it is respectfully requested that the Examiner's arguments and not convincing and should not be considered.

For these reasons, as well as those presented in Appellants' Brief, Appellants respectfully submit that the Final Rejection is in error, and request its reversal by the Honorable Board.

Respectfully submitted,



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